

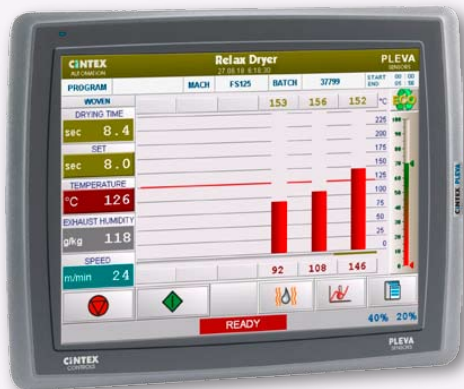
Heat treatment on Relax Dryers

FOR OPEN WIDTH AND
TUBULAR FABRICS

ECO-OPTIDRY®
CIMATIC



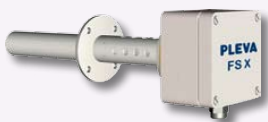
Fabric temperature sensors TDS



ECO-OPTIDRY Control Panel



Fabric temperature



Air humidity sensor FSX



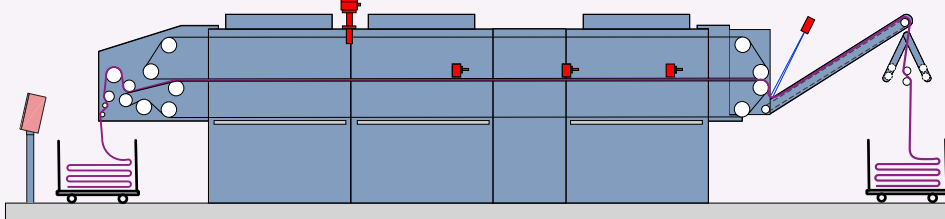
Air humidity

ECO-OPTIDRY
CIMATIC panel

FSX
exhaust
humidity

TDS
fabric
temperature

LS
goods
detection



Type ECO-OPTIDRY CIMATIC

FEATURES OF PRODUCT

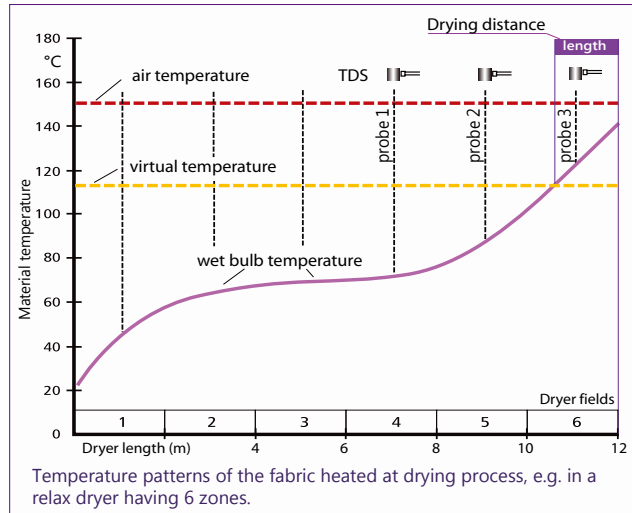
- Control of drying process
- Exhaust air humidity control
- Climate control of process air
- Integrated „Auto-Setting“ function
- Energy consumption meter
- Suitable for new and existing dryers

BENEFIT FOR CUSTOMER

- Easy to use by „Auto-Setting“ function
- Optimised and even drying process
- High benefit by significant energy saving
- Increase of productivity
- Short payback time

Optimal drying of open width and tubular fabrics on tensionless dryers

The first requirement for a relax dryer is the uniform and constant drying of the textile over the full length of a batch. For this, the drying process and the humidity conditions are key factors and must be measured and controlled.

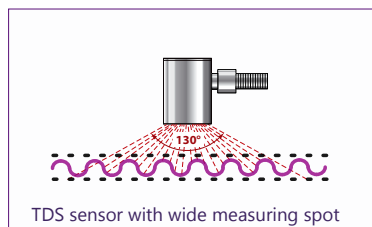
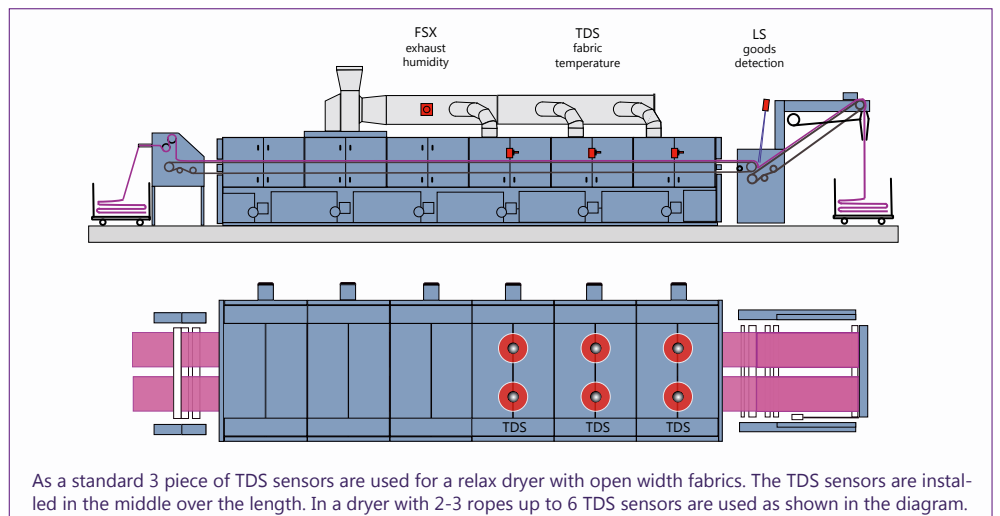


Fabric temperature pattern inside of a relax dryer

For the monitoring and control of the drying process several built-in fabric sensors TDS are used.

The evaluation of a temperature profile and the position of the fabric temperature rising in the dryer allows for a reliable calculation of the degree of drying of the fabric.

The temperature profile is used in the CIMATIC ECO-OPTIDRY for an accurate control of the required speed of the conveyor belt. The result is a uniform and optimised drying.



Evaluation of the degree of drying

The determining factor of the degree of dryness of fabrics are the temperature sensors TDS.

The sensor is designed to detect the radiation heat of the fabric in a wide area of 130° inside of the dryer.

A distance of 100 mm between sensor and fabric will have a reading spot with the size of approx. 450 mm in diameter.



Advanced Dry Control for tensionless dryers

ECO-OPTIDRY®

ECO-OPTIDRY® for optimised dry control

Modern colour graphic operating panel with modular PLC system and advanced control software guarantees optimised process control at relax dryers.

The advanced function of „AUTO-SETTING“ provides an automatic evaluation of the setting values for easy to use by the operator.

The system use touch screens panel with trend graphic display, data gatering, recipe memory and interfaces to connect to a network by Ethernet.



Advanced control system with „Auto-Setting“

Dry control with „Auto-Setting“

The fabric temperature is measured by several TDS temperature sensors placed over the second half of the dryer. For an accurate control of the drying process the TDS sensors will detect the temperature patterns of the fabric and a temperature profile.

A great feature of the ECO OPTIDRY software is the "Auto-Setting" function for easy operation.

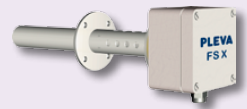
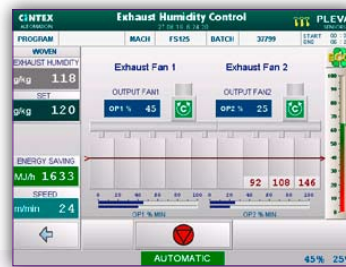


Fabric / Air temperature sensors TDS

Air humidity control

The air humidity sensor FSX measures the water content of the process air to control the exhaust air rate for an economic efficiency of the drying process.

Of very significance importance for a high quality for the fabrics is a climate control of the process air. The FSX sensor will not only reduce your energy costs, but also is a must for the climate control.



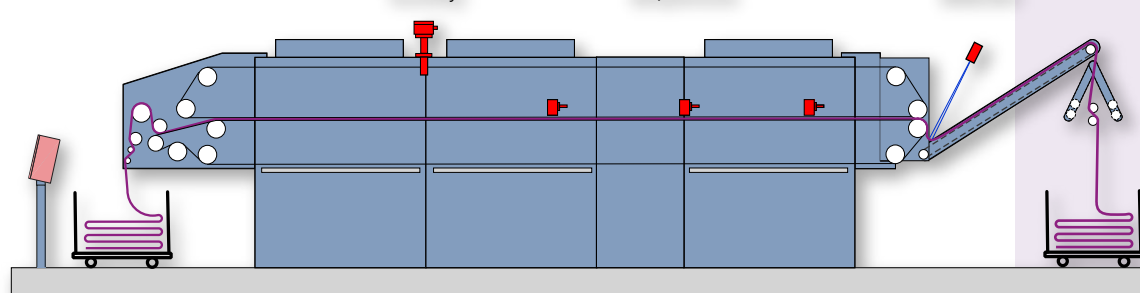
Air humidity sensor FSX

ECO-OPTIDRY
CIMATIC panel

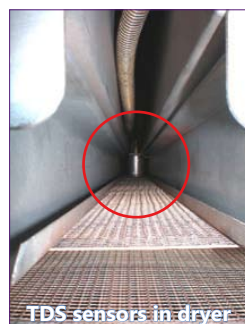
FSX
exhaust
humidity

TDS
fabric
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LS
goods
detection



Tensionless relax dryer for open width knit goods with ECO-OPTIDRY control and required sensors



ECO-OPTIDRY system

Type CIMATIC

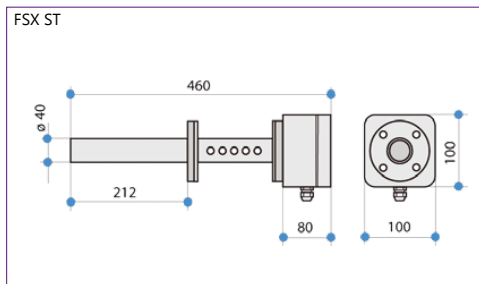
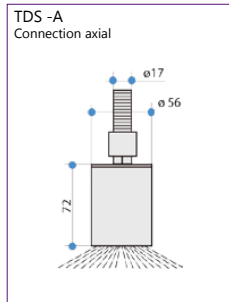
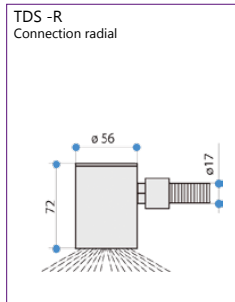
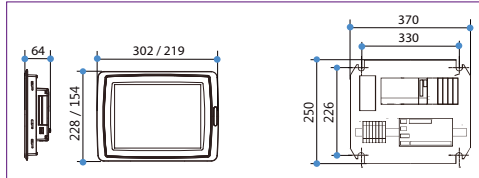
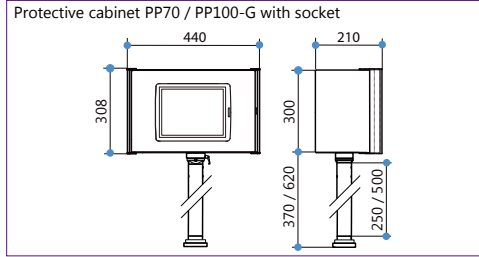
Fabric / Air temperature sensor

Type TDS

Air humidity sensor

Type FSX

Technical Data



ECO-OPTIDRY Control system

Ambient temperature: max. 50 °C
Power supply: 230 V AC (+/- 10 %), 50/60Hz
Power consumption: approx. 130 VA

Panel type PP 70: 6.5" Touch Screen coloured
Panel type PP 100: 10.4" Touch Screen coloured

Weight protective cabinet: 15 kg (wall mounting)
Weight stand socket: 2.8 kg (length 250mm)

Panel PP70-R / PP100-R with mounting plate and PLC only

Weight PP70 panel: 1.6 kg
Weight PP100 panel: 2.8 kg
Weight mounting plate: 4.0 kg

Sensor TDS

Ambient temperature: Type TDS ST-A • TDS ST-R
Measuring range 0..250°C: Type TDS HT-A • TDS HT-R
Measuring range 0..400°C: +/- 1 %
Accuracy measuring range:
Distance to material: 20..120 mm (optimal 60mm)
Measuring area: 140 mm at 20 mm distance
300 mm at 60 mm distance
550 mm at 120 mm distance
Cable length (standard): 5 m / 7 m / 10 m
Cable length (optional): 13 m / 16 m (other on request)
Weight TDS sensor: 0.5 kg without flexible tube
Weight flexible tube: 0.3 kg per m flexible tube

Sensor FSX

Process air temperature: Type FSX ST: max. 250 °C
Type FSX HT: max. 600 °C
Temperature of sensor: > 700 °C
Heating-up time for sensor: approx. 20 min
Measuring range sensor: standard 0 .. 1000 g/kg
selectable on Process Box: free scaling
Ambient temperature for instrument preamplifier: max. 70 °C
Power supply: 24 V DC (+/- 10 %)
Power consumption: max. 24 VA, max. 1.0 Amps.
Weight sensor FSX ST: approx. 2.6 kg

Accessories optional

- **Fabric detection sensors** to detect goods
- **Measuring data evaluation** at external PC (data transfer by USB stick or Ethernet LAN)

Available monitoring and control systems for different applications

- **ECO-OPTIDRY®** with energy consumption meter for drying process at stenter / dryer
- **PadderControl** for continuous dyeing process
- **SizeControl** for controlled size pick-up
- **DryCan Control** for cylinder drum dryer
- **DensityControl** for pick/course density
- **StraightLiner** for automatic straightening and distortion analysis
- **Add'nDry** for coating process

